

T/VI/M-4

14 December 1964

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UNITED STATES INTELLIGENCE BOARD
COMMITTEE ON DOCUMENTATION

Task Team VI - Research and Development

Minutes of the Fourth Meeting - 9 December 1964

Members or Their Representatives Present

25X1	DEFENSE	- Dr. Ruth Davis, Chairman
	CIA	- Mr. [REDACTED]
	DIA	- Mr. [REDACTED]
25X1	NSA	- [REDACTED]
	NAVY	- Mr. Richard L. Bragan
	ARMY	- Lt. Col. Fielding L. Greaves
25X1	CSS	- Mr. [REDACTED] Secretary

1. The meeting was opened by the Chairman requesting any changes or additions to the minutes of the last meeting. Consideration was given to the ad hoc designation of certain working group assignments to the Army representative who was not at the last meeting. After some deliberation, Lt. Col. Greaves agreed to the tentative assignment made by the Chairman. The official copy of the minutes will reflect this. With no other corrections, the minutes stood as written.

2. The Chairman stated that she had contacted Mr. Edward C. Wilson, CODIB representative from the Department of State in regards to the assignment of a person to this Task Team. Mr. Ralph Roberts of State Department called the Chairman and indicated that he did not feel the Department of State was in a position to have a member devote substantial time to this Team effort but that he would like to designate Mr. Curtis L. Fritz as the Department of State member on this Team so as to have contact with the Team. He requested that the minutes and other associated material be sent to Mr. Fritz.

3. The Chairman asked [REDACTED] to report on the results of his informal meeting with Mr. Byles and [REDACTED] [REDACTED] provided the group an informal paper generated as a result of this meeting. The three participants also brought out that no definite conclusions were arrived at by the group but they did suggest that whatever activities are undertaken by the Task Team should be related to matters of mutual concern within the intelligence community rather than to those of

Group I
Excluded from automatic
Downgrading and
Declassification.

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unique concern to individual agencies. This suggestion resulted in further discussion between the Task Team members regarding the need for defining a context of the activity of the group which would be related to the stated objectives in the Terms of Reference. The question was raised as to how the group should identify the needs of the users within the framework of the objectives of the Terms of Reference. Specific attention was turned for the moment to the question of the interpretation of the words, "this group will concern itself with the techniques associated with handling data after it has been collected." The interpretation of the word "after" was considered. After some discussion, it was decided that the group should not be concerned with sensor devices, as such, but with the data emanating therefrom, the media used, as well as the storage and retrieval of the data.

4. The conversation next turned to the need for the consideration of and selection of the various elements as outlined in the "intelligence data handling methodology" paper distributed by the Chairman at the last meeting. After considerable discussion, it was decided that this was an appropriate time to limit the areas with which the Task Team would be primarily concerned. Consideration was given to the flat elimination of certain application areas or the alternative choice of assigning priorities. It was decided to assign priorities to certain of the application areas (List A attached) but to retain an interest in all of the classifications of the source data type (List B attached). It was decided to place a priority 1 on paragraphs 10,13,16,17,18,19, 20, and 21 of list A. These are renumbered 1-8 in the new selected listing for Team consideration. (See the attachment for the new list A, which is in addition to the original listings of A and B. List B remains unchanged). All others in list A will be considered priority 2. It was further tentatively concluded by the group that only those areas of priority 1 in list A and all of list B will be considered by the Task Team between now and April. A firm decision on this point was requested by the Chairman by the next meeting.

5. The group considered this new listing as a replacement of the working group assignments which were made a part of the minutes of the last meeting. After some deliberation, each of the members of the Team agreed to accept assignments in list A (as indicated in attachment 2) and bring to the next meeting a paper including the following:

- a. A descriptive name using either the one provided in the original listing or one considered more appropriate.
- b. A short statement of the rationale as to why this application area was considered important within the Terms of Reference and;
- c. A definition of each application area including its scope, categories included, category definition, and some examples.

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6. With these assignments agreed upon, the Chairman further requested that each member consider appropriate persons or groups who might usefully be invited, because of their specialized knowledge, to brief the group during the month of January. The group generally agreed to have a short series of one-half day briefings during January, as appropriate.

7. The Team next considered the steps to follow those now planned. It was agreed that the group must continue to seek a common language of understanding of the various problem areas being looked at. Certainly the group must, in some cases, look at the problem areas assigned to the Team members, become aware of the present R&D activity and try to identify the gap between these two. Consideration was also given as to how the group should commence the draft of the report which has been assigned an April deadline. The Chairman indicated that she would begin the task of outlining this report and, as we go along, the parts will fall in place as a result of the work of the Team in the following weeks. It was reiterated again that the group needs to develop not just needs which could be stated in general terms by anybody in any of the areas, but rather the group must carefully weigh particular reasons for the needs; the "why" of these needs must be specifically outlined and not just a statement of generalized platitudes.

8. A short review of the bibliography being developed by the Secretary was held and consideration was given to the nature of the collections being started by the CODIB Support Staff on behalf of this group. It was agreed that the major emphasis should be on reports and information of a generalized nature, and only that material which could be available either by the originating organization or by providing a copy to the Secretary should be cited.

9. Some of the members expressed a desire for a listing of the bibliography provided to the Secretary to date. This bibliography is attached to the minutes. The DIA representative cited a recent Litton document entitled, "Toward a Basic Understanding of Problems Associated with the Production of Intelligence Information." He pointed out that he felt that much of the rationale that the Team is deriving was expostulated in this document and it would be worthy of the members' consideration. The Secretary was requested to obtain sufficient copies of this document for each member. This has been arranged for and they will be provided the members upon receipt by the Secretary.

10. The Secretary brought to the attention of the members the "Directory of selected ADP research and development projects and activities", provided by the Bureau of the Budget in December 1963. Requests concerning additional details as outlined in the directory are currently available from the Science Information Exchange. Several of the Team members were not aware of this directory. The Secretary was requested to make copies of this available to the Team members. This is presently being arranged. It was pointed out by the Secretary, however, that this activity was experimental and limited to only five

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of a potentially larger number of R&D categories and that it has not been kept current. Mr. [] informed the Secretary that a current search of the [] holdings might be useful to the efforts of this Task Team. The Chairman requested that this be arranged for by the Secretary.

11. In the absence of the Air Force representative, the Chairman distributed to the members, copies of the Air Force's submission on current projects in the following areas: language translation, geographic calculations, image interpretation, document storage and retrieval, visual data and electronic signals. The Army representative provided the members copies of current Army projects in the fields of geographic calculation, image interpretation, electronics signals, visual data, and information storage and retrieval. This information will be held by the Secretary pending the submission of the reorganized data as outlined in these minutes.

12. The group next considered the broad problem of definition of terms and it was agreed by the group that wherever possible, commonly accepted definitions should be carefully considered before new definitions are created. It was pointed out that many glossories already exist (e.g., BOB published ADP glossory). The Chairman urged the members to consider these sources as well as others such as the National Science Foundations (Dick See), the National Bureau of Standards (Ethel Marden), ADI publications and []

13. The Chairman next referred the members to the still outstanding requirement as recited in the minutes of the first meeting wherein reports were requested from each member for "identification of the organizations and personnel within the intelligence community through which R&D can be sponsored and coordinated." The Chairman considers this an outstanding and important requirement for reports from each member and requested that they be submitted by the next meeting.

14. The Secretary pointed out that a COSATI subcommittee on research chaired by Ezra Glaser (with the Patent Office) has recently prepared a draft of a paper entitled "Components of a Unified Government-Wide Research Program in Information Technology." This report has ten major subheadings with a report on each of these subjects having been prepared in the last few months by task groups within the subcommittee. The Team members considered this activity as significant and agreed that the Team should be kept aware of the activities of the COSATI subcommittee on research. The COSATI subcommittee is planning to submit the report in the next few months with a copy of the ten major topics. These include:

1. Machine translation of natural languages and other linguistic studies.
2. Remote consoles, inputs and outputs.

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3. **System evaluation.**
4. **Classification of knowledge - organization of scientific and technical information.**
5. **Pattern recognition.**
6. **Programming languages.**
7. **Large file organization and behavior.**
8. **Encoding of information.**
9. **User needs and user interaction with information systems.**
10. **Technological base for a national information network.**

15. The meeting adjourned by agreeing to meet on 6 January 1965 at 1000 hours in 2E52, CIA Headquarters.



Secretary

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Attachments: 1 & 2
Bibliography

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Attachment I

INTELLIGENCE DATA HANDLING METHODOLOGY

A. Classification By Application

1. Calculation of Movements and Locations of Known Mobile Objects
2. Calculation of Movements and Locations of Unknown Mobile Objects
3. Calculation of Location of Fixed Objects
 - a. Identifiable by Non-Geographical Characteristics
 - b. Identifiable by Geographical Characteristics
4. Calculation of Quantitative Characteristics of Objects
5. Environmental Calculations
 - a. Weather
 - b. Fall-out
 - c. Nuclear Generated Patterns
 - d. Spectrometric Observations
 - e. Traffic Patterns, etc.
6. Inventory Calculations (log, weapons, etc)
7. Network Problems
 - a. Communication Netting
 - b. Transportation Nets, etc.
8. System Monitoring
 - a. Traffic Analysis
 - b. Space Craft Performance
 - c. Lie Detection
 - d. Bomb Alarm Systems, etc.
9. Control Processing
 - a. A/C Control
 - b. Satellite Control
 - c. Fire Control, etc.
10. System Management
 - a. Collection Management
 - b. EDP System Management
 - c. Library Management
 - d. Dissemination Management, etc.

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11. **Cryptanalysis**
12. **Simulation**
13. **Language Translation**
14. **Geographical Calculations**
 - a. Mapping & Charting
 - b. Geodesy, etc.
15. **Astronomical Calculations**
 - a. Space Guidance Calculations
 - b. Stellar Determinations, etc.
16. **Image Interpretation**
 - a. Photographic
 - b. I. R.
 - c. SLAR
 - d. MIT, etc.
17. **Language Processing (Other than Translation)**
 - a. Abstracting
 - b. Indexing
 - c. Extracting
 - d. Formatting, etc.
18. **Pattern Recognition**
 - a. Character
 - b. Lexigraphical
 - c. Symbolic
 - d. Trends
 - e. Contour, etc.
19. **Document Retrieval (Includes Storage)**
 - a. Film Chips
 - b. Film Reels
 - c. Paper Documents (Books, Reports, Messages)
 - d. Charts, etc.
20. **Information Storage and Retrieval**
 - a. Text
 - 1) Formatted
 - 2) Unformatted
 - b. Numerical
 - c. Signals
 - 1) Digital
 - 2) Analog, etc.

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21. Predictive Calculations

- a. Indications
- b. Warning
- c. Estimates, etc.

22. Planning

- a. Simulation
- b. System Design
- c. Financial
- d. Contingency and/or Operations
- e. Targetting
- f. Penetration

23. Teaching

- a. Language
- b. Techniques
- c. Concepts
- d. Analysis, etc.

24. Problem Solving

- a. Intelligence Analyses
- b. Inductive Processes
- c. Inferential Decision-Making
- d. Fragmentary Data Analysis
- e. Attack Assessment
- f. Strike Assessment, etc.

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B. Classification by Source Data Type

1. Textual

- a. Free Text
- b. Unformatted but Subject Oriented
- c. Formatted
- d. Code

2. Numerical

- a. Code
- b. Encrypted
- c. Straight (Non-code and Non-encrypted)

**3. Alphanumeric
(Combination of 1 & 2 above)**

4. Visual Data

- a. Photographs
- b. I. R.
- c. SLAR
- d. Radar Returns
- e. Diagrams
- f. Charts and Graphs
- g. Maps
- h. Oscillograms
- i. Finger Prints
- j. Spectograms

5. Electronic Signals

- a. Telemetry
 - 1) Externals
 - 2) Internals
- b. Radar
- c. Wide-Band
- d. Narrow-Band
- e. Physiological Indicators, etc.

6. Acoustic

- a. Voice of Speech
- b. Sonar
- c. Seismic
- d. Low Frequency Special Systems, etc.

7. Documents

(Here the document itself is to be handled as an entity
with the information it contains being of no interest)

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- a. **Books, Reports, Papers**
- b. **Messages**
- c. **Film Reels**
- d. **Film Chips**
- e. **Magnetic Tapes**
- f. **Paper Tapes**
- g. **Maps & Charts.**

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Attachment 2

Selective Listing for Team Consideration

A. Classification by Application

1. System Management (AF)
2. Language Translation (NSA)
3. Image Interpretation (Army, Navy)
4. Language Processing (Other than translation) (CIA, NSA)
5. Pattern Recognition (Navy, DIA)
6. Document Retrieval (Including Storage) (AF)
7. Information Storage and Retrieval (NSA)
3. Predictive Calculations (Army)

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CODIB R&D TASK TEAM BIBLIOGRAPHY

Following is a list of titles deemed pertinent and submitted to the Secretary by the various agency representatives to date. The letters following each title indicate the contributing agency and available source (either A for contributing agency or S for Secretary).

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